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TEACHER ATTITUDES TOWARD THE MAINSTREAMING OF EXCEPTIONAL STUDENTS: EFFECTS OF THE EDUCATIONAL CLIMATE

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Teacher Attitudes Toward the Mainstreaming of Exceptional Students: Effects of the Educational Climate

In the United States, PL 94-142 is now ten years old, and for a decade school districts have had the legal responsibility to provide for all exceptional children in the "least restrictive environment." However, the movement toward integrating exceptional children into regular classrooms is not restricted to the United States. Many countries have been exposed to a vigorous advocacy on behalf of the handicapped for their right to enjoy an existence as close as possible to normal (Mitchell, 1981).

Canadians have closely observed the passage and progress of the American law as they move toward the passage of mandatory special education legislation. However, under the Canadian system, a child's right to education is not entrenched by any constitutional provision. The responsibility for education depends entirely upon provincial legislation, and is a tenaciously guarded right. Currently, six Canadian provinces have some form of mandatory legislation regarding exceptional children. The other provinces and the two territories have permissive legislation, implying that they may provide services but are under no legal obligation to do so (Goguen, 1980).

Ontario, Canada's most populous province, was the first to promulgate mandatory special education legislation that clearly delineates the rights of exceptional children to a free and appropriate education. Ontario's Education Amendment Act was passed in 1980 for full implimentation in September, 1985. Identical in intent to PL 94-142, the Education Amendment Act is less prescriptive in nature. Hodder (1984) observed that it slots between PL 94-142 and having no bill at all.

In Australia, exceptional children were traditionally educated in special schools, many operated by voluntary organizations. The disadvantages inherent in complete segregation, and the need to make provisions for mildly handicapped children, led to partial segregation in special classes in regular schools during the 1950s and 1960s (Drummond, 1978). The early 1970s witnessed increased interest in special education and the publication of a number of reports, at both the national and state level, directed at the future of Australian special education (Andrews, 1973; Cohen Committee, 1973; Drummond, 1978; Senate Standing Committee, 1971, 1972). In addition, non-government statements regarding special education appeared (Rehabilitation, 1972; Rigby, 1973).

The Karmel Report (Interim Committee, 1973) highlighted Ausralia's lack of provisions for exceptional children as well as the need for expanded teacher training. The Karmel Report gave full recognition to the need to accommodate exceptional pupils in regular schools, whenever possible, while also allowing segregated programming for children with handicaps of such a degree and nature that education in the regular stream was not feasible (Andrews, 1973). The Report had a major impact on Australian educational circles. It is now policy throughout Australia to provide free and appropriate education for exceptional children in the regular schools, where possible, and to ensure that support services are in place (Drummond, 1978).

Although policy at the Australian national level encourages the integration of exceptional children, the entire notion of mainstreaming remains an area of concern. One teacher trainer pointed out that "the concept of mainstreaming is ... doubtful" because "teachers were never adequately prepared for mixed ability classes and in general have never learned to cope with them" (Mitchell, 1981, p.474). With debate centered around whether or not to mainstream exceptional children, the concept of

mandatory legislation, while certainly mentioned (Steinberg, 1980), has not yet become a real issue in Australia.

In advocating mainstreaming, the Australians recognize that "teachers' attitudes toward the children and acceptance of responsibility for their education are of prime importance" (Drummond, 1978, p.40). Similarly; Canadian promoters of mainstreaming realize that attitudes are crucial, and may be more important for the success of the enterprise than any other curricular or administrative strategy.

Attitudes are critical, at least as important as teacher competencies, curricular modifications, or administrative strategies. The attitudes held by regular classroom teachers can positively or adversely affect student achievement, teacher behaviour, and student behaviour. The significance of the effects of the attitudes of regular classroom teachers toward exceptional pupils and mainstreaming has led American researchers to examine various components of attitude formation and maintenance. The studies have generally consisted of three major types.

Firstly, investigators have carefully probed the variables associated with acceptance or rejection of specific groups of exceptional children (Hirshoren and Burton, 1979; Moore and Fine, 1978; Shotel, Iano, and McGettingan, 1972; Vandivier and Vandivier, 1981; Williams and Algozzine, 1979). Secondly, an extensive body of research has been directed toward the impact of teacher-related characteristics. Variables include age, sex, grade level taught, educational role, levels of education, years of teaching experience, and geographical location (Berryman and Berryman, 1981; Combs and Harper, 1967; De Leo, 1976; Donaldson and Martinson, 1977; Gearheart and Weishahn, 1976; Harisymiw and Horne, 1975; Larrivee and Cook, 1979; Mandell and Strain, 1978; Ogletree and Atkinson, 1982).

A third group of studies have investigated the effects of contact with, or exposure to, exceptional individuals (Brooks and Bransford, 1971; Glass and Meckler, 1972; Hoover and Cessna, 1984; Larrivee, 1981; Leyser, Abrams and Lipscomb, 1981; Yates, 1973). This category also includes numerous studies concerning the impact of information about exceptional children and special education on attitude modification (Alexander and Strain, 1978; Brooks and Bransford, 1971; Glass and Meckler, 1972; Harisymiw and Horne, 1976; Johnson and Cartwright, 1979; Larrivee, 1981).

On the Australian scene, little research exists in the area of teacher attitudes. In 1978, a survey of nearly 1,300 principals of primary and high schools in New South Wales discovered rather negative attitudes toward the integration of mildly mentally retarded children (Ward, Parmenter, Riches and Hauritz, 1978, in Mitchell, 1981). On the other hand, direct evidence of positive attitudinal shifts were shown to result from initial exposure in two Australian studies (Bird, 1979; Cronk, 1978).

In Canada, the impact of teacher attitudes is viewed as a major variable in the success of mainstreaming. Research concerning the attitudes of Canadian teachers toward exceptional children and the notion of mainstreaming has made findings remarkably consistent with studies in the United States (Barton, Snart, and Hillyard, 1985; Dow, 1984; Higgs, 1975; Sanche, Haines and Van Hesteren, 1982; Winzer, 1984a, 1984b).

Purpose of the Study

While the integration of exceptional children may be imposed by binding laws, attitudes are not generally amenable to legislation. This study was primarily undertaken to assess whether the educational climate, meaning in this case the concepts and ideas circulating about mainstreaming, was a variable in attitude formation and maintenance.

Three geographical areas were chosen for study. Ontario was selected as a Canadian province with mandatory legislation, along with and a five-year preparation period prior to the full integration of exceptional children. In British Columbia, policy and practice follow mainstreaming principles, but binding legislation is not in place. Western Australia, which is moving cautiously toward integration but lacks legislation, was the third option.

A second objective of the study was the development of an instrument that would measure specific dimensions of attitudes toward mainstreaming. The final instrument was to be short, easy to administer, and open to use with a variety of people interested in exceptional children. As well, the instrument was to demonstrate satisfactory validity and reliability.

Method

1. Sample

Students enrolled in introductory courses in special education provided the sample. Participants came from the three locations: British Columbia (n=142), Ontario (n=109) and Western Australia (n=93). The Attitude Survey was presented in the opening class.[1].

Such a sample imposes limitations on the study. It was a critical assumption that the participants were not representative of the public at large. Moreover, enrolment in an introductory special education course may be indicative of already generally positive attitudes.

2. Instrument

The scale developed for this series of studies, the Attitude Survey, was constructed in order to measure attitudes toward exceptional children and the notion

of mainstreaming. An earlier study (Winzer, 1984a) assessed the attitudes of 182 participants in introductory special education courses. A second study with 122 participants (Winzer, 1984b) measured whether information about exceptional children positively modified attitudes.

An original 40 item survey was piloted, and the responses item and factor analysed. This gave a 32 item scale, which was then used in the earlier studies. Further factor analysis indicated three underlying dimensions: the costs of mainstreaming to children, both regular and exceptional; costs to the regular classroom teacher, and financial considerations. However, on this 32 item survey form, the financial statements produced low correlation with the total scale, indicating that they did not measure the same universe of content as the other two dimensions.

The current 25 item scale was then compiled with regard to logical consistency, lack of ambiguity, and the elimination of items with low correlations. The present scale contains two major dimensions: A, costs to the regular classroom teacher, and B, costs to children, both regular and exceptional.

Items, positively and negatively worded, were presented on a five-point Likert type scale (Likert, 1932). Participants using the **Attitude Survey** were asked to mark one of the five alternatives for each question strongly agree, agree, disagree, strongly disagree, or no opinion. A score of one was attached to responses representing the least favourable attitudes; a score of five represented the most favourable.

Results

This research was concerned with ascertaining whether teachers in widely varied geographical locations, functioning under different educational policies and legislation, held different attitudes toward exceptional children and mainstreaming.

The 25 item Attitude Survey produced two dimensions related to mainstreaming -- A, costs to the regular classroom teacher, and B, costs to children. Reliability estimates of the internal consistency of the scale gave satisfactory results on the two dimensions and the full scale. Hoyt estimate of reliability indicated Dimension A, 0.86, Dimension B, 0.71 and full scale, 0.88. Cronbach's alpha for composite was 0.85.

Mean attitude scores were obtained and a one-way analysis of variance (ANOVA) conducted in order to determine whether meaningful differences existed between the groups. The means and standard diviations are presented in Table 1. High mean values are representative of positive attitudes.

Table 1.
Means and standard deviations of Australian and Canadian teachers on the Attitude Survey

Location	Dimension	N	Mean	s.d.	Total Possible Score
Total sample	A	322	53.1824	6.723	65
B.C.		138	54.2681	5.926	
Ontario		104	54.0096	5.9976	
Australia		87	50.4713	7.9502	
Total sample	B	319	49.094	5.7744	60
B.C.		135	50.1037	4.5944	
Ontario		98	49.9490	5.5546	
Australia		86	46.5349	6.8680	

Examination of the data demonstrated significant differences between the Australian and the Canadian samples. Australian teachers held significantly less positive attitudes toward exceptional children and mainstreaming then did the other two groups. Australian teachers were less positive in relation to the costs to the regular classroom teacher ($F = 10.2030$, df 2, $p = <.001$), and also regarding the costs to children ($F = 12.4156$, df 2, $p = <.001$). No significant differences were found between the Ontario and British Columbia samples on either dimension.

To further differentiate inter-group differences, the data was analyzed in relation to single items. Summary statistics of the one-way analysis of variance for the total sample, as well as the B.C. and Ontario data on items which demonstrated significant differences, are presented in Table 2.

---------- INSERT TABLE 2 HERE ----------

Again, on analysis of single items, Australian teachers demonstrated significantly less positive attitudes. In discriminating between British Columbia and Ontario, it was found that generally on the single items, B.C. teachers held more positive attitudes. The only exceptions were items five and eleven. Teachers in British Columbia felt that they could not give adequate time to the exceptional child and, if they took an exceptional child, they should receive extra financial renumeration.

However, very meaningful differences were found among the three groups in regard to whether the classroom teacher should have the final decision in mainstreaming an exceptional child. Table 3 presents these results. Further analysis of item 15 indicated that differences also existed in regard to grade level taught. Junior high school teachers apparently felt most adamant about input into decision-making ($F = 2.2274$, df 5, $p = <.05$).

Table 3.
Responses to item 15:
Classroom teachers should make the decision as to whether or not to take an exceptional child in their classroom

Location	N	Mean	s.d.
B.C.	141	3.9574	1.114
Ontario	107	3.5234	1.2312
Australia	92	2.1304	1.3027

p=<.001

To complete the analysis, teacher variables -- sex, age, grade level taught, status, experience, and qualifications -- were assessed on both dimensions of the Attitude Survey. The three groups demonstrated much consistency. Neither the Australian nor the Ontario group showed any significant differences when analyzed on these variables.

Some significant differences were discovered among the B.C. sample, however. Dimension A showed significant differences according to the age level taught ($F=2.8576$, df 5, $p=<.05$). Positive attitudes decreased as grade level increased, with high school teachers showing the least positive attitudes. Similarly, more experienced teachers demonstrated less positive attitudes in relation to Dimension B ($F=3.885$, df 2, $p=<.05$).

Discussion

As the movement to integrate exceptional children into regular classrooms gains momentum, the attitudes of the professionals most closely concerned with the process become important to evaluate. This study was undertaken in order to assess whether the educational climate, implying the concepts and notions circulating concerning mainstreaming, impacted on teachers' attitudes.

For the research, a twenty-five item **Attitude Survey** was employed. Data analysis revealed that Canadian teachers hold attitudes that are generally in a positive direction and, at the very least, reflect the idea that mainstreaming will not have an adverse effect. The responses of the teachers from British Columbia were somewhat more positive overall than two earlier groups of B.C. students studied (Winzer, 1984a, 1984b). British Columbia and Ontario were similar on both dimensions of the **Attitude Survey** and on single scale items. Generally, however, the response means indicated that Ontario teachers are not quite as positive on all domains as their western counterparts.

On all aspects of the Attitude Survey, the Australian teachers demonstrated significantly less positive attitudes. They appear relatively unsympathetic to the integration of exceptional children and uninspired by the advantages of the process. Such attitudes echo many studies which have shown regular classroom teachers to dismiss mainstreaming and argue for the retention of special classes (Barngrover, 1971; Bradfield, Brown, Kaplan, Ricket and Stannard, 1973; Gickling and Theobald, 1975; Hudson, Graham and Warner, 1979; Major, 1961).

Recent studies on teacher variables such as age, sex, experience, and status, have yielded inconsistent results (Combs and Harper, 1967; De Leo, 1976; Donaldson and Martinson, 1977; Gilling and Rucker, 1977; Harisymiw and Horne, 1975; Higgs,

1975; Larrivee and Cook, 1979; Mandell and Strain, 1978; Major, 1961). The significance of these variables on attitude formation remains imprecise. Assessment of the present data in relation to a number of teacher variables indicated much consistency among the three samples. In this study, the responses did not reflect differences according to sex, age, position in the educational hierarchy, or qualifications.

Some recent research (Larrivee and Cook, 1979; Winzer, 1984b) has found grade level taught to be a factor in attitudes, with less positive attitudes reflective of teachers in the upper levels. In this study, high school teachers from British Columbia demonstrated significantly less positive attitudes in regard to the effects of mainstreaming on the regular classroom teacher. Similarly, junior high school teachers in the entire sample were the most adamant that mainstreaming decisions should ultimately rest with the classroom teacher.

The major attitude determiner in the study was the geographic location of the respondents. Teachers in British Columbia, who function under a policy and practice of mainstreaming, demonstrated the most positive attitudes toward the procedure. Ontario teachers, working within mandatory special education legislation, presented lower attitude means, but were generally leaning in a positive direction. However, in Australia, where the mainstreaming philosophy is relatively novel, the attitudes were significantly less positive and reflected the notion that integration would not be greatly beneficial to the exceptional child on the regular classroom teacher.

As well as determining geographical differences, the study resulted in the development of twenty-five statement Likert type scale. The **Attitude Survey** appears to meet the criteria presented earlier for the measurement of attitudes toward exceptional children and mainstreaming.

Conclusion

Attitudes are not a unitary dimension; many variables are interdependent on the formation and maintenance of attitudes, and the significance of each is not precisely known. The **Attitude Survey** assessed two specific dimensions thought to underline attitude development. Obviously, a two-dimensional survey is limited and not exhaustive of the domain of attitudes. Nevertheless, the results are suggestive.

Canadian teachers, thoroughly immersed in the current mainstreaming philosophy, appear to hold generally positive attitudes toward exceptional children and their integration into the regular classroom. Contrastingly, teachers in Western Australia hold attitudes that would not bode well for mainstreaming ventures. As adherence to mainstreaming philosophy and process is a feature of the Canadian educational scene, and not as prominent in Australia yet, some credence, at least, must be given to the effects of the educational climate.

In the early 1970s, special training of Australian teachers of exceptional students was reported to be generally from three months to one year duration (Andrews, 1973). However, since that time, major developments have been witnessed in the area of teacher training. Drummond (1978) reports that, of all the factors that have been reviewed, "possibley none is more important than the recognition in education generally of the importance of the class teacher in implementing a policy of integration" (p.40).

Australian teachers need to gain competencies in understanding and teaching exceptional children, and in providing appropriate individual programs (Drummond, 1978). With these competencies, plus an understanding of the philosophy and process of mainstreaming, the attitudes of Australian teachers may shift to a more positive orientation.

Reference Note

1. The contributions of Alison Fulner of the Western Australian College of Advance Education and Barbara Malarchyzk of Base Borden School Board, Ontario, are gratefully acknowledged.

Table 2.
Summary statistics, ANOVA, on selected items

Item	Dimension	Total Sample SS	Total Sample F	B.C.-Ontario SS	B.C.-Ontario F
1. Mainstreaming the exceptional child will promote his/her independence.	B	31.023	19.236*	0.26	.0356
4. Exeptional children will find it much easier to mix with their peers after leaving school if they have been taught together in regular classrooms.	B	4.5056	3.4255**	2.3914	4.1829**
5. Teachers who have exceptional children in the regular classroom should receive extra financial renumeration.	A	4.5056	3.4255**	.1082	.0650
8. The image of a particular school benefits from the presence of exceptional children.	A	15.8039	6.6652*	.3227	.2999
9. The integration of exceptional students into regular classes is beneficial to regular pupils.	B	13.3227	6.6613*	.0160	.0330
11. The teacher cannot give equal time to all students if there are exceptional children in the classroom.	A	10.1730	2.9624	9.0642	5.5076**
12. Mainstreaming offers mixed group interaction which fosters understanding and acceptance of differences.	B	8.2593	8.1990*	.0496	.1396

Item	Dimension	Total Sample SS	Total Sample F	B.C.-Ontario SS	B.C.-Ontario F
13. As a teacher, I would be willing to have an exceptional child in my classroom.	A	8.1311	6.2730**	.1233	.2411
14. Mainstreaming is likely to have a negative effect on the emotional development of the exceptional child.	B	11.773	6.1048**	1.7496	2.0215
15. Classroom teachers should make the decision as to whether or not to take an exceptional child in their classroom.	A	191.8907	66.1393*	11.4629	8.4317**
16. Mainstreaming will give exceptional students a better chance to readily fit into their home community.	B	10.6024	10.1080*	1.6628	3.8543**
17. The exceptional child is likely to be socially isolated by regular students.	B	8.7352	3.1220**	2.6900	1.9455
20. As a teacher, I would be willing to take extra training so as to be able to better handle exceptional children in my classroom.	A	11.5102	11.8418*	.8562	3.1785
21. The parents of regular children will object to the presence of exceptional children in the regular classroom.	B	5.2826	2.0394	5.1908	4.1616*
23. Teachers need extra training if they are to teach exceptional students.	A	3.4336	3.0272*	.4798	.9500
24. Regular students quickly become accustomed to having exceptional pupils in the school and naturally accept them as peers.	B	7.6690	5.0124*	2.6234	4.1356**

* p<.01, ** p<.05

References

Alexander, C. and Strain, P.S. (1978). A review of educator's attitudes toward handicapped children and the concept of mainstreaming. Psychology in the Schools, 15, 390-396.

Andrews, R.J. (1973). The Karmel Report and special education in Australia. Slow learning child, 20, 155-159.

Barngrover, E.A. (1971). A study of educator's preferences in special education programs. Exceptional Children, 37, 754-755.

Barton, L., Snart, F. and Hillyard, A. (1985). Attitudes of teachers and peers toward multiply handicapped students during the first year of public school integration. B.C. Journal of Special Education, 9, 111-120.

Berryman, J. D. and Berryman, C.R. (1981). Use of the Attitudes Toward Mainstreaming Scale with rural Georgia teachers. ERIC No. ED 201 420.

Bird, M. (1979). Partial integration of moderately handicapped and normal children. The Primary Journal, New South Wales Department of Education. No.3.

Bradfield, H.R., Brown, J., Kaplan, P., Rickel, E., and Stannard, E. (1973). The special child in the regular classroom. Exceptional Children, 39, 384-390.

Brooks, B.L. and Bransford, L.A. (1971). Modification of teachers' attitudes toward exceptional children. Exceptional Children, 38, 259-260.

Cohen, S. et al. (1973). Teacher education, 1973-1975, Report of the Australian Commission on Advanced Education. Canberra: Australian Government Publishing Service.

Combs, R.H. and Harper, J.L. (1967). Effects of labels on attitudes of educators toward handicapped children. Exceptional Children, 33, 399-403.

Cronk, M.S. (1978). Attitude change toward trainable mentally retarded: Mainstreaming in reverse. Paper presented at the First World Congress on Future Special Education, Stirling, Scotland.

De Leo, R. (1976). The attitudes of public school administrators and teachers toward the integration of children with special needs into regular classroom educational programs. Dissertation Extracts International, 37, 2.

Donaldson, J. and Martinson, M.C. (1977). Modifying attitudes toward physically disabled persons. Exceptional Children, 43, 337-341.

Dow, I. (1984). The integration of exceptional children: The Ontario scene. B.C. Journal of Special Education, 8, 283-291.

Drummond, D. (1978). Special education in Australia with special reference to developments in the education of the handicapped in the decade of rehabilitation, 1970-1980. ERIC No. ED 185-711.

Gearheart, B.R. and Weishahn, M.W. (1976). The handicapped child in the regular classroom. St. Louis: Mosby.

Gickling, E.E. and Theobald, J.T. (1975). Mainstreaming: Affect or effect. Journal of Special Education, 9, 317-328.

Gillung, T.B. and Rucker, C.N. (1977). Labels and teacher expectations. Exceptional Children, 43, 454-465.

Glass, R.M. and Meckler, R.S. (1972). Preparing elementary teachers to instruct mildly handicapped children in regular classrooms: A summer workshop. Exceptional Children, 39, 152-156.

Goguen, L. (1980). Rights to education for exceptional children in Canada: A growing national concern. In M. Csapo and L. Goguen (Eds.) Special education across Canada: Issues and concerns for the '80s. Vancouver: Centre for Human Development and Research.

Harisymiw, S.J. and Horne, M.D. (1975). Integration of handicapped children: Its effects on teacher attitudes. Education, 96, 153-156.

Harisymiw, S.J. and Horne, M.D. (1976). Teacher attitudes toward handicapped children and regular class integration. Journal of Special Education, 10, 393-400.

Higgs, R.W. (1975). Attitude formation -- Contact or information? Exceptional Children, 41, 496-497.

Hirshoren, A. and Burton, T. (1979). Willingness of regular teachers to participate in mainstreaming handicapped children. Journal of Research and Development in Education, 12, 93-100.

Hodder, C. (1984). The Education Amendment Act (Ontario): A review. Interchange, 15, 44-53.

Hoover, J. and Cessna, K. (1984). Preservice teachers attitudes toward mainstreaming prior to student teaching. Journal of Teacher Education, 35, 49-51.

Hudson, F.H., Graham, S. and Warner, M. (1979). Mainstreaming: An experimentation of the attitudes and needs of regular classroom teachers. Learning Disabilities Quarterly, 2, 58-62.

Interim Committee for the Australian Schools Commission (1973). Schools in Australia. Canberra: Australian Government Publishing Service.

Johnson, A.B. and Cartwright, C.A. (1979). The roles of information and experience in improving teachers' knowledge and attitudes about mainstreaming. Journal of Special Education, 13, 453-462.

Larrivee, B. (1981). Effect of inservice training intensity on teacher's attitudes toward mainstreaming. Exceptional Children, 48, 34-39.

Larrivee, B. and Cook, L. (1979). Mainstreaming: A study of the variables affecting teacher attitude. Journal of Special Education, 13, 316-323.

Leyser, Y., Abrams, P., and Lipscomb, E. (1981). Modifying attitudes of prespective elementary school teachers toward mainstreaming. Journal for Special Educators, 18, 1-10.

Likert, R. (1932). A technique for the measurement of attitudes. Archives of Psychology, 140.

Major, I. (1961). How do we accept the handicapped? Elementary School Journal, 61, 328-330.

Mandell, C.J., and Strain, P.S. (1978). An anlaysis of factors related to the attitudes of regular classroom teachers toward mainstreaming mildly handicapped. Contemporary Educational Psychology, 3, 154-162.

Mitchell, D. R. (1981). An evaluation of the integration of moderately intellectually handicapped children into a regular school environment. Hamilton, New Zealand: Hamilton Teachers College, ERIC No. ED 215 491.

Moore, W. and Fine, M. J. (1978). Regular and special class teachers' perceptions of normal and exceptional children and their attitudes toward mainstreaming. Psychology in the Schools, 15, 253-259.

Ogletree, E.J. and Atkinson, L.M. (1982). Mainstreaming teachers favor mainstreaming. ERIC No. ED 233 027.

Rehabiliation International (1972). Rehabilitation guidelines for the future. New York: Rehabilitation International.

Rigby, N. (1973). The retarded: Pensions or progress? Canberra: Australian Association for the Mentally Retarded.

Sanche, R., Haines, L. and Van Hesteren, F. (1982). Pre-service teacher preparation for mainstreaming: Attitude formation and measurement. B.C. Journal of Special Education, 6, 69-77.

Senate Standing Committee on Education, Science and the Arts (1972). The Commonwealth's role in teacher education. Canberra: Australian Senate.

Senate Standing Committee on Health and Welfare (1971). Mentally and physically handicapped persons in Australia. Canberra: Australian Senate.

Shotel, J.R., Iano, R.P. and McGettigan, J.F. (1972). Teacher attitudes associated with the integration of handicapped children. Exceptional Children, 38, 677-683.

Steinberg, M. (1980). A message to special education from mothers of disabled children.. The Exceptional Child, 27, 177-184.

Vandivier, P.L. and Vandivier, S.C. (1981). Teacher attitudes toward mainstreaming exceptional students. Journal for Special Educators, 17, 381-388.

Williams, R.J. and Algozzine, B. (1979). Teachers' attitudes toward mainstreaming. Elementary School Journal, 80, 63-67.

Winzer, M. (1984a). Attitudes of educators and non-educators toward mainstreaming. Canadian Journal for Exceptional Children, 59, 23-26.

Winzer, M. (1984b). The effect of information on the attitudes of teachers and non-educators toward mainstreaming. B.C. Journal of Special Education, 8, 273-282.

Yates, J.R. (1973). Model for preparing regular teachers for mainstreaming. Exceptional Children, 39, 471-472.